



Federal Communications Commission
Washington, D.C. 20554

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Small Entity Compliance Guide

**Improving Outage Reporting for Submarine Cables
and Enhanced Submarine Cable Outage Data**

GN Docket No. 15-206

**FCC 16-81 - Released July 12, 2016
FCC 19-138 - Released December 27, 2019**

This Guide is prepared in accordance with the requirements of Section 212 of the Small Business Regulatory Enforcement Fairness Act of 1996. It is intended to help small entities—small businesses, small organizations (non-profits), and small governmental jurisdictions—comply with the revised rules adopted in the above-referenced Federal Communications Commission (FCC or Commission) rulemaking dockets. This Guide is not intended to replace or supersede these rules, but to facilitate compliance with the rules. Although we have attempted to cover all parts of the rules that might be especially important to small entities, the coverage may not be exhaustive. This Guide cannot anticipate all situations in which the rules apply. Furthermore, the Commission retains the discretion to adopt case-by-case approaches, where appropriate, that may differ from this Guide. Any decision regarding a particular small entity will be based on the statute and any relevant rules.

In any civil or administrative action against a small entity for a violation of rules, the content of the Small Entity Compliance Guide may be considered as evidence of the reasonableness or appropriateness of proposed fines, penalties or damages. Interested parties are free to file comments regarding this Guide and the appropriateness of its application to a particular situation. The FCC will then consider whether the recommendations or interpretations in the Guide are appropriate in that situation. The FCC may decide to revise this Guide without public notice to reflect changes in the FCC's approach to implementing a rule, or it may clarify or update the text of the Guide. Direct your comments and recommendations, or calls for further assistance, to the FCC's Consumer Center:

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I. OBJECTIVES OF THE PROCEEDING

In the *Report and Order* in 2016¹ and subsequent *Order on Reconsideration* in 2019² (referred to in this Guide together as *Orders*) in GN Docket 15-206, the Commission adopted rules that require submarine cable licensees to report certain qualifying service outages in the Federal Communications Commission's (FCC or Commission) Network Outage Reporting System (NORS) to ensure the reliability and security of the nation's communications infrastructure.³ In the *Report and Order*, the Commission adopted new reporting requirements to improve and standardize the information submitted regarding submarine cable outages. In the *Order on Reconsideration*, the Commission revised the new reporting requirements to reduce the licensees' reporting costs and administrative burdens by exempting the reporting of certain outages due to planned maintenance. The revisions also eliminated an inconsistency between the rule and the *Report and Order*'s outage definition.⁴

Submarine cable licensees previously provided information to the Commission voluntarily about service disruptions in their submarine cables, on a case-by-case basis as determined by the licensee, through the Undersea Cable Information System (UCIS).⁵ Over time, this approach provided the Commission with limited and incomplete information about submarine cable outages. As a result, the Commission adopted the *Orders* providing for new mandatory reporting requirements to improve the efficiency and utility of the reporting process for submarine cable outages.⁶ The improved outage information will enhance the FCC's overall understanding of submarine cable systems and individual outage disruptions and restoration efforts.

II. COMPLIANCE REQUIREMENTS

The *Orders* amend part 4 to require licensees who construct and operate submarine cables under the Cable Landing License Act⁷ to submit a set of filings with the Commission when they experience a reportable outage.

A. Covered Entities (47 CFR § 4.15(b))

- The new mandatory outage reporting applies to all submarine cable licensees, regardless of when their license was obtained.⁸
- When a submarine cable is jointly owned and operated by multiple licensees, the licensees of that cable may designate one of them as the "Responsible Licensee" to file outage reports

¹ *Improving Outage Reporting for Submarine Cables and Enhanced Submarine Cable Outage Data*, GN Docket No. 15-206, Report and Order, 31 FCC Rcd 7947 (2016) (*Submarine Cable Report and Order*).

² *Improving Outage Reporting for Submarine Cables and Enhanced Submarine Cable Outage Data*, GN Docket No. 15-206, Order on Reconsideration, 34 FCC Rcd 13054 (2019) (*Submarine Cable Order on Reconsideration*).

³ See 47 CFR pt. 4. Reports are filed electronically and with a presumption of confidentiality in the Commission's NORS database. 47 CFR § 4.15(c)

⁴ *Submarine Cable Order on Reconsideration*, 34 FCC Rcd at 13054, para. 2.

⁵ The new reporting regime will replace the UCIS voluntary reporting system and the FCC's Public Safety and Homeland Security Bureau (PSHSB) will announce the official retirement of UCIS. *Submarine Cable Report and Order*, 31 FCC Rcd at 7953, para. 14.

⁶ *Submarine Cable Report and Order*, 31 FCC Rcd at 7949, para. 5.

⁷ *Submarine Cable Report and Order*, 31 FCC Rcd at 7962-63, paras. 37-39.

⁸ See *Submarine Cable Report and Order*, 31 FCC Rcd. at 7962-63, paras. 37-39.

under this rule on behalf of all licensees on the affected cable.⁹

- When a Responsible Licensee is designated, the Responsible Licensee must provide, in writing, to the Chief of PSHSB, the information for the submarine cable at issue, including the name of the submarine cable and the contact information for all licensees, including the Responsible Licensee. The Responsible Licensee, once registered with PSHSB, will be held responsible for outage reporting compliance and notifying PSHSB of any changes to its position as Responsible Licensee.

If no Responsible Licensee has been identified to PSHSB, or no one entity is effectively registered with PSHSB in this role at the time of an outage, each licensee of the jointly owned submarine cable experiencing a reportable outage can be held responsible for reporting and liable should the Commission need to pursue enforcement action.

B. Reportable Outages (47 CFR § 4.15(a))

- Submarine cable licensees are required to file a report in NORS for service outages, which are defined as “a failure or significant degradation in the performance of a licensee’s cable service regardless of whether the traffic can be re-routed to an alternate path.”¹⁰ Specifically, outage reporting is required where:
 - An outage of a portion of a submarine cable system between submarine line terminal equipment (SLTE) at one end of the system and SLTE at another end of the system occurs for 30 minutes or more; or
 - An outage of any fiber pair, including due to terminal equipment, on a cable segment for four hours or more, regardless of the number of fiber pairs that comprise the total capacity of the cable segment.
 - A submarine cable licensee is not required to report outages that are caused by announced planned maintenance and the licensee notified its customers in advance of the planned maintenance and its expected duration. This also includes an announced planned outage that results in rerouted traffic. However, a licensee must report these outages if the planned maintenance duration surpasses the shortest announced duration and this additional time triggers the requirements discussed above. In this scenario, the outage becomes reportable as of the time the maintenance exceeds the shortest announced duration for the planned maintenance.¹¹

C. Filing Obligations (47 CFR § 4.15(b))

- For each outage, submarine cable licensees must submit three types of filings in NORS:¹² 1) a Notification; 2) an Interim Report; and 3) a Final Report. NORS provides users with an electronic template (see below) to facilitate reporting. The information filed through NORS

⁹ See *Submarine Cable Report and Order*, 31 FCC Rcd at 7962-63, paras. 38-39.

¹⁰ *Submarine Cable Report and Order*, 31 FCC Rcd at 7955, para. 18; *Submarine Cable Order on Reconsideration*, 34 FCC Rcd at 13063-64, para. 32.

¹¹ *Submarine Cable Order on Reconsideration*, 34 FCC Rcd at 13069, Appendix A.

¹² *Submarine Cable Order on Reconsideration*, 34 FCC Rcd at 13069-70, Appendix A.

is encrypted to ensure its security.¹³

<u>Notification</u>	<u>Interim Report</u>	<u>Final Report</u>
Submitted within eight hours (to become four hours as of three years after the effective date of the rules) from the time of determining that a reportable outage has occurred.	Submit within 24 hours of receiving a Plan of Work (related to repairs) for the service outage.	Submit within seven days of completing the repairs associated with the outage.

1. *Notification Requirements*¹⁴

For the first three years after this rule goes into effect, submarine cable licensees are required to submit a Notification in NORS within eight hours of determining that an event is a reportable outage.¹⁵ The fourth year after the rule becomes effective, a report must be filed in NORS within four hours of the determination. Notifications must:

- Include the names of the reporting entity and of the submarine cable; including the list of all licensees for that cable;
- Describe the event, such as the date and time the outage was determined reportable and when it started (the onset of the outage), and if known, the root cause of the outage. If the root cause is unknown, licensees should so state and should provide further information when it becomes available in either the Interim or Final Report;
- Provide the location of an outage by identifying the nearest cable landing station, and if known, the best estimate of the location of the event, written using the either:
 - Nautical miles and the direction from the nearest cable landing station, or
 - Approximate latitude and longitude coordinates;
- Estimate the duration of the event. With respect to the duration of the event, licensees must provide if known, their best estimate of the duration of the event in the Notification and should supplement with further information as it becomes available in their Interim or Final Reports;
- State whether the event is related to planned maintenance, and if unplanned reportable outage resulted; and
- Provide relevant contact information for the licensee.

If there are technical impediments to using the Web-based NORS during the Notification

¹³ For a detailed instruction manual for the NORS system please see the sources listed at the end of this guide.

¹⁴ See *Submarine Cable Report and Order*, 31 FCC Rcd. at 7964-67, paras. 42-50.

¹⁵ Three years after the effective date of these rules, licensees will be responsible for filing notifications within four hours of determining that an event is reportable.

stage, then a written notification to the Commission by e-mail to the Chief, PSHSB, is permitted, but must contain the same information required in NORS.

2. *Interim Report Requirements*¹⁶

Licensees are required to file an Interim Report within 24 hours of receipt of the Plan of Work for the repairs needed to fix the service disruption. Interim Reports must include updates to the information required for the Notification (see above):

- Include the names of the reporting entity and of the submarine cable;
- Describe the event, such as the date and time the outage was determined reportable and when it started (the onset of the outage), and if known, the root cause of the outage. If the root cause is unknown, licensees should so state and should provide further information when it becomes available in the Final Report. If the outage resulted from a planned maintenance event, the nature of the planned maintenance event;
- Provide the location of an outage by identifying the nearest cable landing station, and approximate location of the event, written using the either:
 - Nautical miles and the direction from the nearest cable landing station, or
 - Approximate latitude and longitude coordinates;
- Provide the date and time the Plan of Work was received and best estimate of when the submarine cable is scheduled to be repaired, including, if applicable, the approximate arrival time and date of the repair ship performing the repair work; and
- Provide relevant contact information for the licensee.

3. *Final Report Requirements*¹⁷

Final Reports must be filed within seven calendar days after a service disruption repair is completed. The Final Report must include updates to the information required for both the Notification and the Interim Report (see above):

- Include the names of the reporting entity and of the submarine cable;
- Describe the event, such as the date and time the outage was determined reportable and when it started (the onset of the outage), and if known, the root cause of the outage. If the outage resulted from a planned maintenance event, the nature of the planned maintenance event;
- Provide the location of an outage by identifying the nearest cable landing station, and approximate location of the event, written using the either:
 - Nautical miles and the direction from the nearest cable landing station, or
 - Approximate latitude and longitude coordinates;
- State the duration of the event and restoration method (including steps taken to

¹⁶ See *Submarine Cable Report and Order*, 31 FCC Rcd. at 7967-69, paras. 53, 55.

¹⁷ See *Submarine Cable Report and Order*, 31 FCC Rcd. at 7970-71, paras. 59-61, 64-65.

prevent reoccurrence); and

- Provide relevant contact information for the licensee.

After the submission of the Final Report, should other details regarding the outage become known or change as research is done and repairs are completed, licensees are required to supplement the Final Report if the new information materially alters the previously reported information. Final Reports must also contain an attestation from an authorized representative by the Licensee to legally bind the Licensee to the truth, completeness, and accuracy of the information contained in the report.¹⁸

III. RECORDKEEPING AND REPORTING REQUIREMENTS

The rules adopted in the *Orders* contain new information collection requirements for reporting submarine cable outages that meet the specified outage reporting threshold criteria described above.¹⁹ The failure by a licensee to timely file a mandatory network outage report can result in substantial enforcement action.²⁰ The reporting process involves completing a series of online forms in NORS and submitting the information, which the FCC will maintain as confidential.²¹ Submarine cable licensees should continue to track, investigate, and correct all of their service disruptions as ordinary course of business operations and maintenance—including addressing service disruptions that do not trigger outage reporting requirements. The details and specifics of the reporting and recordkeeping requirements adopted in the *Orders* can be found in Section II of this guide under the Compliance Requirements.

IV. IMPLEMENTATION DATE

The rules for outage reporting adopted in the *Report and Order*²² and revised by the *Order on Reconsideration*²³ became effective on April 20, 2020.²⁴ The reporting requirements in 47 CFR 4.15 were subject to the Office of Management and Budget (OMB) approval and do not require compliance until six months after the Commission publishes a notice in the Federal Register announcing OMB approval. OMB approved these rules on March 25, 2021, and the Commission published a notice in the Federal

¹⁸ See 47 C.F.R. § 4.11. Providing that “[e]ach Final report shall attested by the person submitting the report that he/she has read the report prior to submitting it and on oath deposes and states that the information contained therein is true, correct, and accurate to the best of his/her knowledge and belief and the communication provider on oath deposes and states that this information is true, complete, and accurate.”

¹⁹ 47 CFR § 4.15.

²⁰ See, e.g., *Time Warner Cable Inc.*, Order, 29 FCC Rcd. 9992 (2014) (resolving the failure to file required network outage reports with a \$1.1 million civil penalty and a three-year compliance plan).

²¹ 47 CFR § 4.15(v). The Commission recently adopted rule revisions, scheduled to take effect on September 30, 2022, that would allow sharing with participating agencies of the 50 states, the District of Columbia, tribal nations, territories, and other agencies of federal government that have official duties that make them directly responsible for emergency management and first responder support functions. See *In the Matter of Amendments to Part 4 of the Commission’s Rules Concerning Disruptions to Communications*, Second Report and Order, FCC 21-34 (2021).

²² See *Submarine Cable Report and Order*, 31 FCC Rcd. at 7974-75, para. 77.

²³ *Submarine Cable Order on Reconsideration*, 34 FCC Rcd at 13067, para. 42.

²⁴ See Federal Communications Commission, *Improving Outage Reporting for Submarine Cables and Enhanced Submarine Cable Outage Data*, 85 FR 15733 (March 19, 2020).

Register announcing OMB approval on April 28, 2021.²⁵ The effective date for compliance is October 28, 2021.

V. INTERNET LINKS

A copy of the *Report and Order* is available at:

https://apps.fcc.gov/edocs_public/attachmatch/FCC-16-81A1_Rcd.pdf.

A copy of the Federal Register Summary of the *Report and Order* is available at:

<https://www.federalregister.gov/documents/2016/08/08/2016-18610/improving-outage-reporting-for-submarine-cables-and-enhanced-submarine-outage-data>.

A copy of the *Order on Reconsideration* is available at:

https://docs.fcc.gov/public/attachments/FCC-19-138A1_Rcd.pdf.

A copy of the Federal Register Summary of the *Order on Reconsideration* is available at:

<https://www.federalregister.gov/documents/2020/03/19/2020-03397/improving-outage-reporting-for-submarine-cables-and-enhanced-submarine-cable-outage-data>.

Network Outage Reporting System (NORS): NORS information and instructions are available at:

<https://www.fcc.gov/network-outage-reporting-system-nors>.

A copy of the Federal Register announcement of OMB approval is available at:

<https://www.federalregister.gov/documents/2021/04/28/2021-08651/improving-outage-reporting-for-submarine-cables-and-enhanced-submarine-cable-outage-data>.

A copy of the Public Notice announcing the compliance date for submarine cable outage reporting is available at: <https://www.fcc.gov/document/compliance-date-submarine-cable-outage-reporting>.

²⁵ Federal Communications Commission, Improving Outage Reporting for Submarine Cables and Enhanced Submarine Cable Outage Data, 86 Fed Reg. 22360 (Apr. 28, 2021).